



## **National Transportation Safety Board**

Washington, D.C. 20594

Louis O'Donnell  
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Assistant Chief Surveyor  
16855 Northchase Drive  
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Re: ABS Technical Review of draft Survival Factors Factual Report

Lou:

The NTSB investigative team has reviewed all factual comments submitted by the parties as part of the technical review and has decided on a disposition for each one.

All editorial suggestions have been considered and will be incorporated as appropriate.

The deadline for providing party submissions pursuant to 49 CFR 831.14 is March 17, 2017.

Best regards,

Brian Young  
Investigator in Charge  
National Transportation Safety Board  
490 L'Enfant Plaza, S.W.  
Washington, DC 20594

Technical Review of Draft Factual Reports: American Bureau of Shipping (ABS)

Party Comments by email/letter dated: November 30, 2016

*NTSB Draft Factual Report for Tech. Review*

Page/Line	ABS' COMMENTS	NTSB – Disposition of Party Comments
5 / 4	<p><b>Current Draft:</b> “Steel, reduced scantlings”</p> <p><b>Requested Change:</b> “Steel, ✕A1, Vehicle Carrier, ⓔ, ✕AMS”</p>	- Defer to IIC/Engineer Group Chairman’s template for accident.
15 / 2	<p><b>Current Draft:</b> “ship’s identity”</p> <p><b>Requested Change:</b> “ship’s identity”</p>	Concur
27 (footnote 30)	<p><b>Current Draft:</b> “rea- time”</p> <p><b>Requested Change:</b> “real-time”</p>	Concur
30 / 14-15	<b>Requested Change:</b> As there are two different debris fields of about 20 nautical miles identified in the report (see caption of Figure 15 at page 36), it would be helpful to identify which of those two debris fields is being discussed. Figures 9-14 are difficult to read.	Concur
36 (Figure 15)	<p><b>Comment:</b> Figure 15 is difficult to read.</p> <p><b>Requested Change:</b> Perhaps the relevant area and the symbols can be enlarged. Also, it would be helpful to label the debris fields – perhaps as Field 1 and Field 2 – in order to refer to them in the discussion of where particular debris was found.</p>	<ul style="list-style-type: none"> <li>- Figure provided by USCG SAROPS screen shot.</li> <li>- We can make a better graphic for the Marine Accident Report.</li> </ul>
41 / 11-12	<p><b>Requested Change:</b> Between lines 11 and 12, insert the following:</p> <p>International Lifeboat Standards and Regulations are discussed in detail in Section 5.17 below.</p>	Concur
48	<b>Requested Change:</b> After Figure 22, request that a discussion of Harding’s recent service of the lifeboat davit winches be inserted.	- Mentioned in Table 7 1 <sup>st</sup> & 3 <sup>rd</sup> line items.

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	See MBI Exhibits 74 and 239 concerning service on September 29 and August 4, 2015, respectively. Bruce Wagner, a Harding Service Technician, testified before the MBI on May 26, 2016. Tim Neeson, the port engineer, testified before the MBI that Tote did not notify ABS or the Coast Guard to give them an opportunity to attend the lifeboat winch work.	- Added discussion on new page 40, second paragraph of section on “Lifeboats.”
51 / 9	<p><b>Comment:</b> There seem to be inconsistent and/or confusing statements regarding recovery of life preservers (lifejackets). Revision or clarification would be helpful.</p> <p>At page 51, line 9, the report states that, “No life preservers were recovered during the recovery operation.”</p> <p>However, at page 30, line 11, the report states that, “Searchers began recovering <i>El Faro</i> survival equipment during the day, including three liferings and one adult personal flotation device (lifejacket).” Footnote 34 states that, “These were the first <i>El Faro</i> survival debris to be recovered. ...” Perhaps the reference to the recovered lifejacket should be removed, or it should be clarified at this point that the lifejacket was later determined by Tote not to be <i>El Faro</i> survival equipment. At page 56, “<b>Table 5.</b> <i>El Faro</i> survival debris discovered or recovered” includes a single Type II recreational “Lifejacket”, but the description indicates that it was later determined by Tote to be cargo, not assigned to crew. It is confusing to include this cargo in a table of “<i>El Faro</i> survival debris”.</p>	<p>- Concur, I missed this deletion in the draft report.</p> <p>- Concur, cargo recreational type II PDF &amp; a non-<i>El Faro</i> work vest are described on page 52/lines 5-8.</p>
61 / 6 and 62	<b>Current Draft:</b> “ <b>Table 7.</b> Safety-related <i>El Faro</i> purchase orders for maintenance work by contractors, 2015.”	- Deleted ABS and USCG purchase orders for surveys and inspections.

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	<p><b>Comment:</b> As ABS does not perform maintenance work, the inclusion of Tote purchase orders intended for ABS seems inappropriate. Also, the relevance of those purchase orders to safety-related maintenance work is unclear from Table 7.</p> <p><b>Requested Change:</b> Remove the Tote purchase orders intended for ABS from Table 7.</p>	
63 / 4	<p><b>Current Draft:</b> “Table 8. Last lifeboat system required weight tests and wire falls renewal.”</p> <p><b>Requested Change:</b> “Table 8. Last lifeboat davit and brake winch required weight tests and wire falls renewal.”</p>	Concur
71 / 6	<p><b>Current Draft:</b> “andon”</p> <p><b>Requested Change:</b> “and on”</p>	Concur
76 / 9	<p><b>Current Draft:</b> “<i>El Faro</i> was constructed under the SOLAS rules for vessel built in 1973 and was inspected and surveyed under those rules.”</p> <p><b>Requested Change:</b> “<i>El Faro</i> was inspected and surveyed in accordance with the SOLAS regulations applicable to the vessel based on its date of build.”</p>	Concur
76 / 9	<p><b>Current Draft:</b> “SOLAS rules”</p> <p><b>Requested Change:</b> “SOLAS regulations”</p>	Concur
76 / 11-12	<p><b>Requested Change:</b> Between lines 11 and 12, insert the following:</p> <p style="padding-left: 40px;">The Coast Guard’s ultimate decision not to treat as a “major conversion” the conversion of the vessel from</p>	<p>- Originally thought this should be in the Naval Architecture Factual Report, but now concur. An edited version of requested change has been inserted.</p>

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	<p>Ro-Ro to Lo-Lo configuration resulted in the Coast Guard permitting the open lifeboats to remain aboard EL FARO. At the time of the accident, the outfitting of the vessel with the port and starboard open lifeboats which were fitted with a diesel engine (port lifeboat) and Fleming gear (starboard lifeboat) was based on the SOLAS regulations applicable based on the vessel's date of build, rather than the date of its conversion in 2006. See MBI Exhibit 13.</p>	
77 / 9, 10, 11	<p><b>Current Draft:</b> "rules"</p> <p><b>Requested Change:</b> "regulations"</p>	Concur
77 (footnote 60)	<p><b>Current Draft:</b> "Coasst"</p> <p><b>Requested Change:</b> "Coast"</p>	Concur
77 / 13-14	<p><b>Current Draft:</b> "... requires less skill to launch than side-launched lifeboats."</p> <p><b>Comment/Request:</b> This seems to be an opinion. ABS requests that it be removed from the factual report.</p>	<p>- IIC caught this too. I reread the SNAME technical paper and corrected to "requires fewer steps to launch than side-launched lifeboats."</p>
78 / 2	<p><b>Current Draft:</b> "July1"</p> <p><b>Requested Change:</b> "July 1"</p>	Concur
81 / 18 – 19	<p><b>Requested Change:</b> Between lines 18 and 19, insert the following:</p> <p>Prior to the lengthening of the <i>El Faro</i>, the Coast Guard Officer in Charge of Marine Inspection in Mobile, Alabama, advised in 1992 that all modifications to the vessel must comply with the</p>	<p>- Originally thought this should be in the Naval Architecture Factual Report, but now concur. An edited version of requested change has been inserted with footnotes.</p>

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	<p>most recent SOLAS amendments, and that, as a practical matter, all aspects of the vessel not being modified may remain as is, but whenever equipment, such as lifeboats, need replacement they must meet the most recent standards. MBI Exhibit 89, page 2. In 2002, the Commanding Officer of the Coast Guard Marine Safety Center advised that when an alteration constitutes a major conversion, it is appropriate to bring the entire vessel into compliance with the latest safety standards where it is both reasonable and practicable to do so. MBI Exhibit 13, page 11. However, after Tote objected to the treatment of the conversion as a “major conversion” as defined by Title 46, United States Code §2101(14a), in 2004 the Commanding Officer of the Coast Guard Marine Safety Center overturned the original determination and advised that the modification of the vessel to accommodate a greater proportion of containers would not be treated as a major conversion. MBI Exhibit 13, page 1.</p> <p>In summary, the <i>El Faro</i> was in compliance with SOLAS regulations applicable to the vessel’s lifeboats.</p>	
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